# UNITED STATES PATENT AND TRADEMARK OFFICE

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/764,510 | 01/18/2001 | Mooi Choo Chuah | CHUAH 54 | 6393 |

| 46363 | 7590 | 10/28/2005 |
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| EXAMINER |
|---|
| NGUYEN, HANH N |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2668 | |

DATE MAILED: 10/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *Amendment filed 7/28/05.*

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-9 and 14-17* is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9 and 14-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some * c)☐ None of:

         1.☐ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____.

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>6/3/02.</u>

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____ .

## DETAILED ACTION

The amendment filed on 7/28/05 has been entered and considered.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

Claims 1-9 and 15-17 are rejected under 35 USC 103(a) as being unpatentable over

Kannas et al. (US pat. No. 6,683,853 B1) in view of Puuskari (Pat. 6,728,208B1).

In claims 1, 2, 3, 4, 6, 7, 8, 15-17,  Kannas et al. discloses a user equipment 10 ( a mobile

station, fig.1) requests at step 52 ( fig.2) for a desired QOS resource ( request a first traffic class)

to a serving support node SGSN 20 (a second packet server) via a radio network controller

RNC18 (a first packet server). If the requested QOS resource ( the first traffic class, step 54,

Fig.2) is not available, lower quality of service resource (a second traffic class is granted if

resource is unavailable at step 56, fig.2) is assigned.  In the mean time, the system continuously

monitors the quality of service availability at step 62 (successively checks resources availability

for at least one other traffic class preference). When a higher quality of service (at step 62, fig.2)

is available, the request for higher QOS is upgraded (at step 68, fig.2) (performing variable QOS

negotiations including downgradable QOS and upgradable QOS with the wireless data).See

col.5, lines 40 to col.6, line 4.

Kannas et al. does not disclose the requested traffic classes are in priority order; and the

checking for resource is according to the priority order. Puuskari discloses a dynamic packet-

based QOS mechanism (fig.1) wherein PDP context ( request) is transmitted from MS

comprising at least one QOS parameter ( request for traffic class from MS). The QOS request is

associated with a priority information and a traffic type information; the priority information

defines the order of the request ( request for traffic class in a priority order); see col.4, lines 12-

50. Puuskari further discloses a type of service field or priority field ( QOS field) or traffic class

field ( Traffic class field) supporting prioritization of requests ( see col.10, lines 45-50; claim

15). Therefore, it would have been obvious to one ordinary skilled in the art to apply the

teachings of Puuskari into Kannas et al.in order to request traffic classes in a priority order and

successively checks the resources according to the priority order and grant multiple level of

resources on best effort basis to a mobile station corresponding to its multiple traffic types. The

motivation is to reduce delay in packet packet transmission.

In claims 5 and 9, Kannas et al. discloses, in Fig.3, a user equipment 10 sends a packet

data protocol (PDP) context activation resquest 80 requesting a first quality of service. Since the

radio network 4 is congested, the user equipment 10 is assigned a second QOS ( using an active

PDP context procedure to support downgradable QOS requirement). When the first QOS is

available, the user equipment 10 is assigned the first QOS ( support upgradable QOS

requirement) See col.6, lines 10-24.

Claim 14 is rejected under 35 USC 103(a) as being unpatentable over Kannas et al. (US

pat. No. 6,683,853 B1) in view of Puuskari (Pat. 6,728,208B1), and further in view of Malmlof

(US pat. No. 6,594,241B1).

In claim 14, Kannas et al. discloses a user equipment 10 ( a mobile station, fig.1) requests

at step 52 ( fig.2) for a desired QOS resource to a serving support node SGSN 20 (a second

packet server) via a radio network controller RNC18 (a first packet server). If the requested QOS

resource (step 54, Fig.2) is not available, lower quality of service resource (at step 56, fig.2) is

assigned. When a higher quality of service (at step 62, fig.2) is available, the request for higher

QOS is upgraded (at step 68, fig.2) (performing variable QOS negotiations including

downgradable QOS and upgradable QOS with the wireless data).See col.5, lines 40 to col.6, line

4. Kannas et al. does not disclose a packet server comprising a transceiver and a processor.

Puuskari discloses a dynamic packet-based QOS mechanism (fig.1) wherein PDP context (

request) is transmitted from MS comprising at least one QOS parameter ( request for traffic class

from MS). The QOS request is associated with a priority information and a traffic type

information; the priority information defines the order of the request ( request for traffic class in

a priority order); see col.4, lines 12-50.

Malmlof discloses, in Fig.5, a RNC  26 ( a packet server) comprising a transceiver 56 ( a

transceiver) , a processing circuit 52 (a processor).  Therefore, it would have been obvious to one

ordinary skilled in the art to apply the  priority field and multiple packet transmissions of

Puuskari into Kannas et al. to grant multiple level of resources on best effort basis to a mobile

station corresponding to its multiple traffic types. In addition, the packet server of Kannas is

modified to have a transceiver and a processor to transmit message comprising QOS information

via the transceiver to the mobile station. The motivation is to reduce delay in packet packet

transmission.

### *Response to Arguments*

Applicant's arguments with respect to claims 1-9 and 14-17 have been considered but are

moot in view of the new ground(s) of rejection.

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

Koistinen et al. (US pat. No. 6,154,778) discloses Utility-based Multi-category Quality of

Service Negotiation in Distributed Systems.

Mallory (Pat. 6954800 B2) discloses Method of enhancing network transmission on a

priority-enabled frame-based communication network.

Chiu et al. (pat. 6744767 B1) discloses Method and Apparatus for Provisioning and

monitoring IP Quality of service.


Applicant's amendment necessitated the new ground(s) of rejection presented in this

Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period
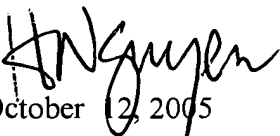
will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Hanh Nguyen whose telephone number is 571 272 3092. The

examiner can normally be reached on Monday-Friday from 8:30 to 4:30. The examiner can also

be reached on alternate

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Chieh Fan, can be reached on 571 272 3042. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hanh Nguyen

October 12, 2005